

CLAIMS

1. A spreading code assigning method in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal
5 doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an
10 information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading
codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an
15 information rate, said method comprising the step of:

assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as
20 said second spreading code.

2. A signal transmitting method in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal
25 doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an
information symbol period, said second spreading code having a longer repetition period than the
30 information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an
information rate, said method comprising the steps
35 of:

assigning a code associated with each base station group or a code associated with each network

type to which said base station group belongs as
said second spreading code; and

transmitting a signal which is spread with
said second spreading code between a base station
5 and a mobile station.

3. A direct sequence CDMA mobile
communication system for transmitting a signal after
spreading said signal doubly with a first spreading
code in a first spreading code group and a second
10 spreading code in a second spreading code group,
said first spreading code having the same repetition
period as an information symbol period, said second
spreading code having a longer repetition period
than the information symbol period, said first
15 spreading code and said second spreading code
forming spreading codes for enlarging a band of a
wide-band signal, a rate of said spreading codes
being higher than an information rate, said system
comprising:

20 a base station using said second spreading
code assigned to each base station group or said
second spreading code assigned to each network type
to which said base station group belongs; and
a mobile station communicating with said
25 base station by using a signal which is spread by
said second spreading code assigned to said base
station.

4. A transmitter in a direct sequence CDMA
mobile communication system for transmitting a
30 signal after spreading said signal doubly with a
first spreading code in a first spreading code group
and a second spreading code in a second spreading
code group, said first spreading code having the
same repetition period as an information symbol
35 period, said second spreading code having a longer
repetition period than the information symbol period,
said first spreading code and said second spreading

code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate,

5 said transmitter assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code, and

10 said transmitter carrying out a communication using a signal spread by said second spreading code assigned to a base station.

5. A receiver in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a
15 first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer
20 repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate,

25 said receiver assigning a code associated with each base station group or a code associated with each network type to which said base station group belongs as said second spreading code, and

30 said receiver carrying out a communication using a signal spread by said second spreading code assigned to a base station.

6. A transceiver in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a
35 first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the

same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading
5 code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate,

said transceiver assigning a code associated with each base station group or a code
10 associated with each network type to which said base station group belongs as said second spreading code, and

said transceiver carrying out a communication using a signal spread by said second
15 spreading code assigned to a base station.

7. The transmitter in the direct sequence CDMA mobile communication system as claimed in claim 4, said transmitter comprising:

second spreading code control means which
20 generates and controls said second spreading code associated with each base station group or each network type to which said base station group belongs.

8. The receiver in the direct sequence
25 CDMA mobile communication system as claimed in claim 5, said receiver comprising:

second spreading code control means which generates and controls said second spreading code associated with each base station group or each
30 network type to which said base station group belongs.

9. The transceiver in the direct sequence CDMA mobile communication system as claimed in claim 6, said transceiver comprising:

35 second spreading code control means which generates and controls said second spreading code associated with each base station group or each

network type to which said base station group
belongs.

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